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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HICKS, CHARLES V

ART UNIT

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2629

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/597,553	Applicant(s) PARKINSON ET AL.	
	Examiner CHARLES HICKS	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-11 and 13-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3,5-11 and 17 is/are allowed.
- 6) ☒ Claim(s) 13-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/01/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is responsive to amendments filed 10/01/2009. Claims 1, 8, 13, and 17 have been amended. Claims 4, 12, 18, and 19 have been cancelled. Claims 1-3, 5-11, and 13-17 are pending.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 13 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by DeWind et al. (US 2006/0164230).

In reference to claim 13, DeWind teaches a touch screen control system comprising a touch screen having first and second conductive layers arranged to be brought together by touching of the screen (DeWind, pg. 14, par. 130; pg. 35, par. 236), and a detection system arranged to detect a contact position at which the screen is touched by monitoring electrical signals from at least one of the layers (DeWind, pg. 14, par. 130; pg. 35, par. 236), wherein the system further comprises an antenna (DeWind, pg. 36. par. 237),

and the detection system includes a proximity sensing signal generator arranged to generate a proximity sensing signal to be transmitted between the antenna and the first layer via a user of the system (DeWind, pg. 35, par. 236; pg. 36, par. 237),

and the detection system is further arranged to receive the transmitted proximity sensing signal and determine therefrom a distance between a part of the user and the touch screen (DeWind, pg. 35, par. 236; pg. 36, par. 237),

wherein the detection system comprises a touch screen controller arranged to detect the contact position (DeWind, pg. 14, par. 130; touch screen actuated by a user touch of the desired part of the screen),

and a proximity sensing system including the proximity sensing signal generator (DeWind, pg. 32, par. 218).

Claim 14 is rejected as being dependent on rejected claim 13 and further, DeWind teaches wherein the touch screen controller is arranged to receive said electrical signals, including the proximity sensing signal from the touch screen, and the proximity sensing system is arranged to receive the proximity sensing signal from the touch screen controller (DeWind, pg. 32, par. 218).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeWind et al. (US 2006/0164230) in view of Takahama et al. (US 5,825,345).

Claim 15 is rejected as being dependent on rejected claim 14 as discussed above and further, DeWind however fails to teach wherein the touch screen controller is arranged to send a synchronisation signal to the proximity sensing system to enable the proximity sensing system to determine when it is receiving the proximity sensing signal from the touch screen controller.

Takahama discloses a display device with touch input, analogous in art with that of DeWind, wherein the touch screen controller is arranged to send a synchronisation signal to the proximity sensing system to enable the proximity sensing system to

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determine when it is receiving the proximity sensing signal from the touch screen controller (Takahama, col. 12, ll. 27-38).

At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the touch screen control system of DeWind wherein the touch screen controller is arranged to send a synchronisation signal to the proximity sensing system to enable the proximity sensing system to determine when it is receiving the proximity sensing signal from the touch screen controller, as taught by Takahama.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to improve the signal-to-noise ratio of the sensing signal, and to enhance the detection accuracy (Takahama, Abstract).

Claim 16 is rejected as being dependent on rejected claim 15 as discussed above and further, DeWind modified by Takahama teaches wherein the touch screen controller is arranged to transmit the synchronisation signal to the proximity sensing system on the same connection as the proximity sensing signal (Takahama, col. 12, ll. 27-38).

Allowable Subject Matter

Claims 1-3, 5-11, and 17 are allowed.

The following is an examiner's statement of reasons for allowance:

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US PG Publication No. 2006/0164230 to DeWind et al. (DeWind) discloses a touch screen control system comprising a touch screen having first and second conductive layers arranged to be brought together by touching of the screen (DeWind, pg. 14, par. 130; pg. 35, par. 236), and a detection system arranged to detect a contact position at which the screen is touched by monitoring electrical signals from at least one of the layers (DeWind, pg. 14, par. 130; pg. 35, par. 236), wherein the system further comprises an antenna (DeWind, pg. 36, par. 237), and the detection system includes a proximity sensing signal generator arranged to generate a proximity sensing signal to be transmitted between the antenna and the first layer via a user of the system (DeWind, pg. 35, par. 236; pg. 36, par. 237), and the detection system is further arranged to receive the transmitted proximity sensing signal and determine therefrom a distance between a part of the user and the touch screen (DeWind, pg. 35, par. 236; pg. 36, par. 237); wherein the first layer has two contact elements extending along opposite sides thereof (DeWind, pg. 5, par. 76; pg. 6, par. 79); wherein the detection system is arranged to transmit the proximity sensing signal from the antenna to the first layer (DeWind, pg. 35, par. 236; pg. 36, par. 237); and the detection system is further arranged to transmit the received proximity sensing signal on to a proximity sensing system thereby to enable the proximity sensing system to determine a distance between a part of the user and the touch screen (DeWind, pg. 35, par. 236; pg. 36, par. 237).

US Patent No. 4,435,616 to Kley discloses wherein the detection system is arranged to connect the contact elements to different potentials so that the potential of each of the layers varies with a distance from each of the two contact elements thereby to enable sensing of the contact position (Kley, Fig. 4; col. 1, ll. 5-14; col. 6, ll. 45-63); wherein the detection system is arranged to receive the proximity sensing signal via at least one of the contact elements (Kley, Fig. 6, Yout; col. 6, ll. 64-col. 7, ll. 9); wherein the detection system is arranged to receive the proximity sensing signal via both of the contact elements (Kley, Fig. 6, Yout, Xout; col. 6, ll. 64-col. 7, ll. 9); wherein the detection system includes a summing device arranged to sum signals from the two contact elements to produce a received proximity sensing signal (Kley, Fig. 6, Yout, Xout; col. 6, ll. 64-col. 7, ll. 9).

US Patent No. 5,825,345 to Takahama et al. (Takahama) discloses wherein the touch screen controller is arranged to send a synchronisation signal to the proximity sensing system to enable the proximity sensing system to determine when it is receiving the proximity sensing signal from the touch screen controller, and wherein the touch screen controller is arranged to transmit the synchronisation signal to the proximity sensing system on the same connection as the proximity sensing signal (Takahama, col. 12, ll. 27-38).

As to claim 1, the prior art of record fails to teach or suggest a touch screen control system comprising a touch screen having first and second conductive layers

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arranged to be brought together by touching of the screen, and a detection system arranged to detect a contact position at which the screen is touched by monitoring electrical signals from at least one of the layers, wherein the system further comprises an antenna, and the detection system includes a proximity sensing signal generator arranged to generate a proximity sensing signal to be transmitted between the antenna and the first layer via a user of the system, and the detection system is further arranged to receive the transmitted proximity sensing signal and determine therefrom a distance between a part of the user and the touch screen, ***wherein the detection system is arranged to alternate between a touch position sensing mode, in which it is arranged to determine the contact position, and a proximity sensing mode, in which it is arranged to measure said distance between a part of the user and the touch screen.*** (emphasis added)

As to claim 8, the prior art of record fails to teach or suggest a touch screen control system comprising a touch screen having first and second conductive layers arranged to be brought together by touching of the screen, and a detection system arranged to detect a contact position at which the screen is touched by monitoring electrical signals from at least one of the layers, wherein the system further comprises an antenna, and the detection system includes a proximity sensing signal generator arranged to generate a proximity sensing signal to be transmitted between the antenna and the first layer via a user of the system, and the detection system is further arranged to receive the transmitted proximity sensing signal and determine therefrom a distance

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between a part of the user and the touch screen, wherein the detection system is arranged to transmit the proximity sensing signal from the antenna to the first layer, ***wherein the detection system is arranged to control at least one connection to the second layer such that the second layer acts as a shield for at least part of the time when the proximity sensing signal is being received.*** (emphasis added)

As to claim 17, the prior art of record fails to teach or suggest a touch screen control system comprising a touch screen having first and second conductive layers arranged to be brought together by touching of the screen, and a detection system arranged to detect a contact position at which the screen is touched by monitoring electrical signals from at least one of the layers, wherein the system further comprises an antenna, and the detection system includes a proximity sensing signal generator arranged to generate a proximity sensing signal to be transmitted between the antenna and the first layer via a user of the system, and the detection system is further arranged to receive the transmitted proximity sensing signal and determine therefrom a distance between a part of the user and the touch screen, ***further comprising a filtering capacitor arranged to be connected between one of the layers and ground during determination of the contact position, but disconnected during measurement of said distance between a part of the user and the touch screen.*** (emphasis added)

Response to Arguments

Applicant's arguments with respect to claims 13-16 have been considered but are moot in view of further search and consideration, and the new ground(s) of rejection.

As to claims 13-16, on page 7 of applicant's response, applicants argue that the rejected claims have been re-written to include limitations of dependent claims noted by the Examiner to be allowable.

Upon further search and consideration, independent claim 13 is rejected as DeWind teaches the detection system comprises a touch screen controller arranged to detect the contact position (DeWind, pg. 14, par. 130), and a proximity sensing system including the proximity sensing signal generator (DeWind, pg. 32, par. 218).

DeWind discloses a touch screen actuated by a user touch of the desired part of the screen, and detection of the touch location, inherently comprising a touch screen controller. Further DeWind discloses a proximity sensing system, comprising a proximity sensing signal, generating a signal in response to the proximity of the user's finger to the touch screen.

Therefore, DeWind teaches the detection system comprises a touch screen controller arranged to detect the contact position, and a proximity sensing system including the proximity sensing signal generator.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES HICKS whose telephone number is 571-270-7535. The examiner can normally be reached on Monday-Thursday from 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz, can be reached on 571-272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Sumati Lefkowitz/
Supervisory Patent Examiner, Art Unit 2629